indicator groups. After synthesis, the interaction of the receptor with the analyte may induce changes in the spectroscopic properties of the molecule. Typically, hydrogen bonding or ionic substituents on the fluorescent monomer involved in analyte binding have the capacity to change the electron density and/or rigidity of the fluorescent ring system, thereby causing observable changes in the spectroscopic properties of the indicator. For fluorescent indicators such changes may be exhibited as changes in the fluorescence quantum yield, maximum excitation wavelength, and/or maximum emission wavelength. This approach does not require the dissociation of a preloaded fluorescent ligand, which may be limited in response time by $k_{(off)}$. While fluorescent ligands are shown here, it is to be understood that a variety of other ligands may be used including colorimetric ligands.

In the Claims:

Please cancel claims 37-38, 69, 115, 135, and 136 without prejudice.

Below is a clean copy of the amended claims. A "strikethrough" version of the amended claims is attached at the end of the response.

1.(amended) A system for detecting an analyte in a fluid comprising:

a light source;

a sensor array, the sensor array comprising a supporting member comprising a plurality of cavities formed within the supporting member;

a plurality of particles, the particles being positioned within the cavities, wherein the particles produce a signal when the particles interact with the analyte during use;